

Applicant : Per Persson et al.
Appln. No. : 10/656,555
Page : 2

3/22/05
APM
to Peter
DCC

In the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (original) A method for controlling a multi-cylinder internal combustion engine having electronically controlled airflow comprising:
 - measuring an internal engine condition;
 - determining if the internal engine condition indicates a limited torque output condition, the limited torque output condition not being based on current ambient temperature or pressure conditions;
 - limiting a currently available maximum engine torque if the internal engine condition indicates the limited torque output condition;
 - determining a driver demanded torque based on a current accelerator pedal position;
 - and
 - controlling the engine to deliver the driver demand torque if the internal engine condition does not indicate the limited torque output condition or to deliver a calibratable percentage of the currently available maximum torque if the internal engine condition indicates the limited torque output condition.
2. (original) The method for controlling a multi-cylinder internal combustion engine of claim 1, wherein:
 - the internal engine condition is engine knock.
3. (original) The method for controlling a multi-cylinder internal combustion engine of claim 2, wherein:
 - the internal engine condition is engine knock at full throttle.
4. (original) The method for controlling a multi-cylinder internal combustion engine of claim 1, wherein:

Applicant : Per Persson et al.
Appln. No. : 10/656,555
Page : 3

the multi-cylinder internal combustion engine further includes an electric motor having a battery having a maximum voltage output; and

the internal engine condition is a level of voltage output from the battery at a predetermined amount below the maximum voltage output.

5. (original) The method for controlling a multi-cylinder internal combustion engine of claim 1, wherein:

the internal engine condition is a working condition of the engine.

6. (original) The method for controlling a multi-cylinder internal combustion engine of claim 1, wherein:

the multi-cylinder internal combustion engine further includes a turbocharger; and the internal engine condition is a temperature of the turbocharger.

7. (original) The method for controlling a multi-cylinder internal combustion engine of claim 1, wherein:

the internal engine condition is a percentage of coolant in the engine.

8. (original) A method for controlling a multi-cylinder internal combustion engine having electronically controlled airflow comprising:

limiting a currently available maximum engine torque below maximum torque based on a limited torque output condition, the limited torque output condition not being based on current ambient temperature or pressure conditions;

determining a driver demanded torque based on a current throttle position; and controlling the engine to deliver the driver demand torque if the internal engine condition does not indicate the limited torque output condition or to deliver a calibratable percentage of the currently available maximum torque if the internal engine condition indicates a limited torque output condition.

Applicant : Per Persson et al.
Appn. No. : 10/656,555
Page : 4

9. (currently amended) The method for controlling a multi-cylinder internal combustion engine of claim 8, wherein:

the internal-engine- limited torque output condition is engine knock.

10. (currently amended) The method for controlling a multi-cylinder internal combustion engine of claim 9, wherein:

the internal-engine- limited torque output condition is engine knock at full throttle.

11. (currently amended) The method for controlling a multi-cylinder internal combustion engine of claim 8, wherein:

the multi-cylinder internal combustion engine further includes an electric motor having a battery having a maximum voltage output; and

the internal-engine- limited torque output condition is a level of voltage output from the battery at a predetermined amount below the maximum voltage output.

12. (currently amended) The method for controlling a multi-cylinder internal combustion engine of claim 8, wherein:

the internal-engine- limited torque output condition is a working condition of the engine.

13. (currently amended) The method for controlling a multi-cylinder internal combustion engine of claim 8, wherein:

the multi-cylinder internal combustion engine further includes a turbocharger; and

the internal-engine- limited torque output condition is a temperature of the turbocharger.

14. (currently amended) The method for controlling a multi-cylinder internal combustion engine of claim 8, wherein:

Applicant : Per Persson et al.
Appln. No. : 10/656,555
Page : 5

the internal-engine- limited torque output condition is a percentage of coolant in the engine.

15. (original) A method for controlling an engine comprising:
 - measuring a vehicle condition;
 - determining if the vehicle condition indicates a limited torque output condition whereby the torque output availability of the engine is below a maximum output availability of the engine, the limited torque output condition not being based on current ambient temperature or pressure conditions;
 - limiting a currently available maximum engine torque if the vehicle condition indicates the limited torque output condition;
 - determining a driver demanded torque based on a throttle position; and
 - controlling the engine to deliver the driver demand torque if the vehicle condition does not indicate the limited torque output condition or to deliver a calibratable percentage of the currently available maximum torque if the vehicle condition indicates the limited torque output condition.
16. (currently amended) The method for controlling the engine of claim 15, wherein:
the internal-engine- vehicle condition is engine knock at full throttle.
17. (currently amended) The method for controlling the engine of claim 15, wherein:
the multi-cylinder internal combustion engine further includes an electric motor having a battery having a maximum voltage output; and
the internal-engine- vehicle condition is a level of voltage output from the battery at a predetermined amount below the maximum voltage output.
18. (currently amended) The method for controlling the engine of claim 15, wherein:
the internal-engine- vehicle condition is a working condition of the engine.

Applicant : Per Persson et al.
Appln. No. : 10/656,555
Page : 6

19. (currently amended) The method for controlling the engine of claim 15, wherein:
the internal-engine- vehicle condition is a percentage of coolant in the engine.

20. (currently amended) The method for controlling the engine of claim 15, wherein:
the multi-cylinder internal combustion engine further includes a turbocharger; and
the internal-engine- vehicle condition is a temperature of the turbocharger.